

Noncommercial Fishing in the West Central Pacific



Justin Hospital
Pacific Islands Fisheries Science Center
Recreational Fisheries Data and Model Needs Workshop
July 26, 2011

Outline

- **Noncommercial management in WCP**
- **Data holdings**
- **Challenges to noncommercial data collection**
- **Noncommercial data needs**
- **Future issues**

Noncommercial Management

- **Hawaii**

- No License, No reporting requirements

- Permitting

- Federal Noncommercial Bottomfish (2007)

- National Saltwater Angler Registry (2010)

- Bag Limits

- Limited, fishery-specific applications

- **Guam/CNMI/American Samoa**

- No License, No reporting requirements, No bag limits

- No scuba spear in the CNMI

Noncommercial Data – Catch/Effort

- **HMRFSS/MRIP (2002 – present)**
 - **Boat, Shore**
 - Questionable participation estimates/expansions
 - Sampling issues
 - Double-counting with “commercial”
- **WPacFIN creel survey (1982 – present)**
 - American Samoa/Guam/CNMI**
 - **Boat, Shore**
 - Sampling Issues, questionable expansions

Noncommercial Data - Economic

- **Economic contribution**
 - National Expenditure Survey (2006, 2011) - HAWAII
 - Sample size concerns
 - For-hire estimates problematic
 - AmSamoa/Guam/CNMI - **none**
- **Valuation**
 - HI Blue Marlin (SP - CE)
 - Gentner (2010) using NES 2006 data
 - Inadequate sample size
 - Ramp Use, FADs (RP)
 - Haab, Hamilton, McConnell (2008) using 1997 data
- **Trip Cost Data collection Program (2012-present)**
 - American Samoa, Guam, CNMI (Saipan)

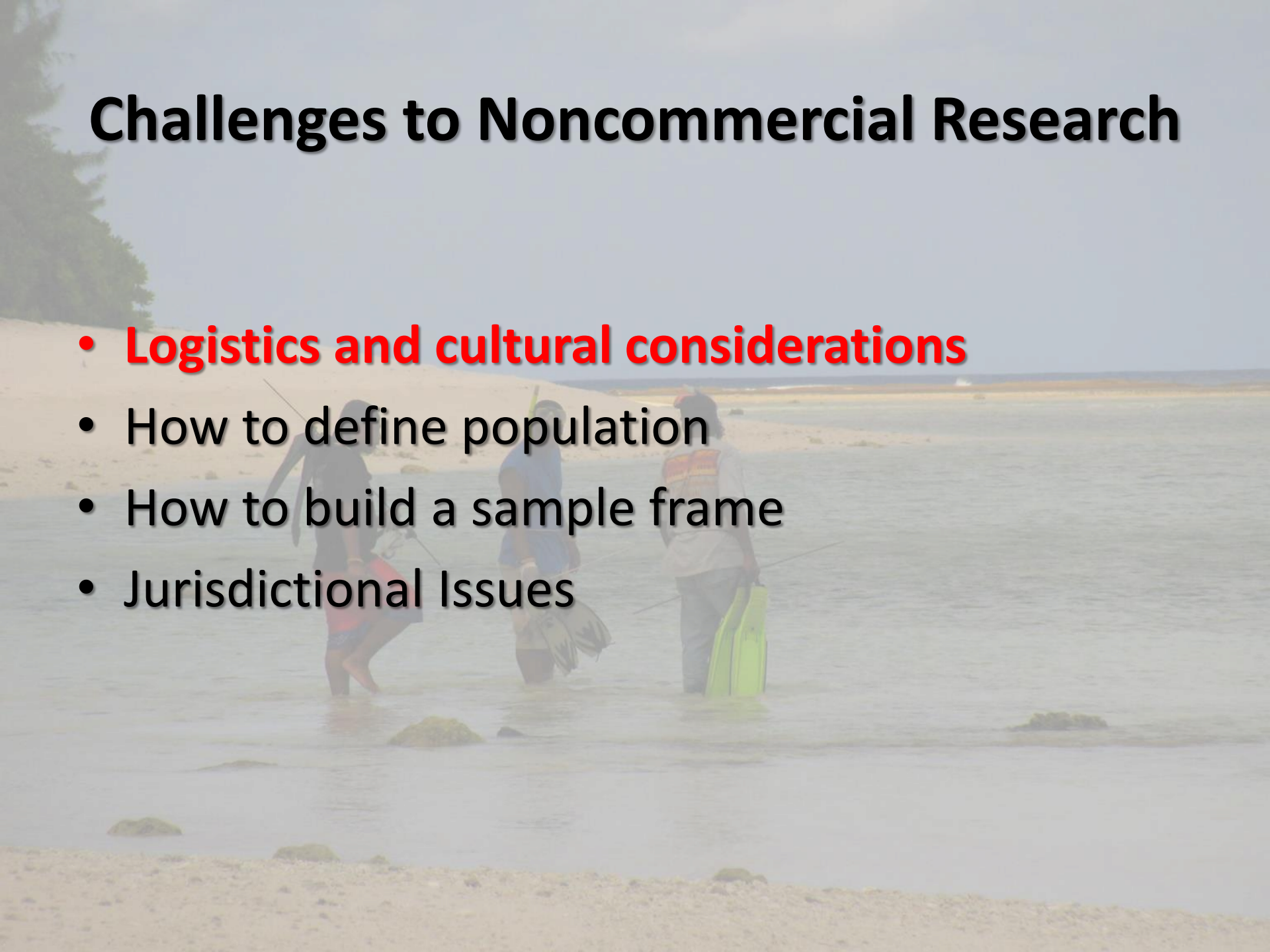
Noncommercial Data - other

- **Cost-Earnings Survey Data**

- Hawaii small boat pelagic (2007-2008)
- Main Hawaiian Islands bottomfish (2009-2010)
- Marianas boat-based fishing (2011)
 - Guam
 - CNMI (Saipan, Rota, Tinian)
- Hawaii For-Hire (2012)
 - Although operations is more “commercial” in Hawaii
 - Captains/crew sell a portion of fish landed (Hospital 2012, Hamilton, 1997)
 - Tag and release upon request, tournaments

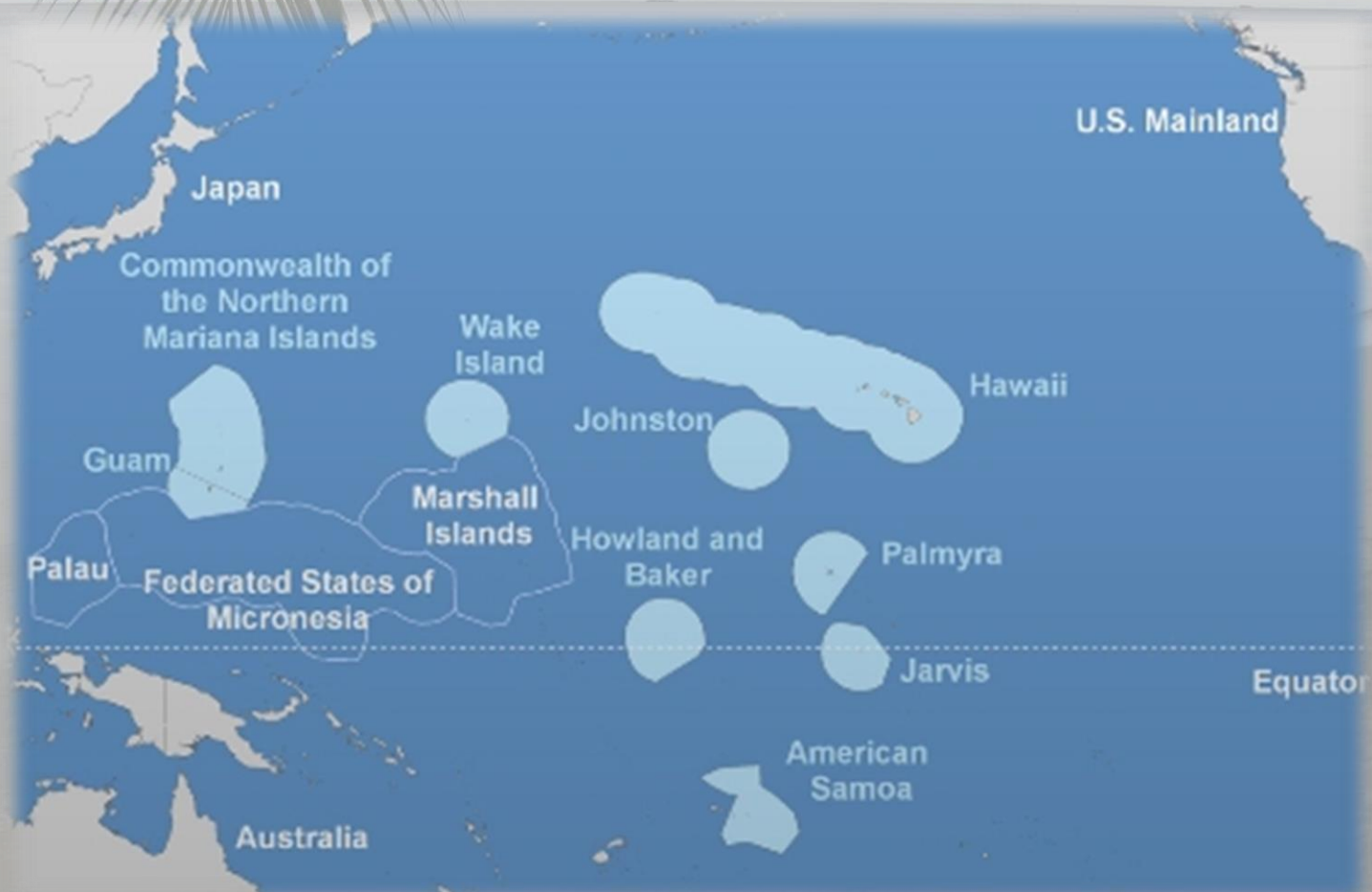
Challenges to Noncommercial Research

- **Logistics and cultural considerations**
- How to define population
- How to build a sample frame
- Jurisdictional Issues



Challenges to Noncommercial Research

- Logistics and cultural considerations



Challenges to Noncommercial Research

- Logistics and cultural considerations
- **How to define population**
- How to build a sample frame
- Jurisdictional Issues



Challenges to Noncommercial Research

- How to define population
 - What is “recreational”?
 - Hawaii Small Boat Pelagic Fishery
 - Hawaii Bottomfish Fishery
 - State of Hawaii Commercial Marine License Frame

Hawaii Small Boat Pelagic Fishery

- MSA vs. MRIP vs. Hawaii vs. Reality
- Classification using survey data
 - Three question approach to classify fishermen
 - Self-Classify
 - Sell fish in past 12 months?
 - Percentage of personal income from fishing?

Hawaii Small Boat Pelagic Fishery

- Self classification results

Response	Percentage
Commercial	41.7
Full time commercial	9.3
Part time commercial	32.4
Recreational	40.2
Other	18.1
Weekend warrior	14.3
Fish only for food	3.8

- Self classification vs. behavior
 - 60% reported selling fish in past 12 months

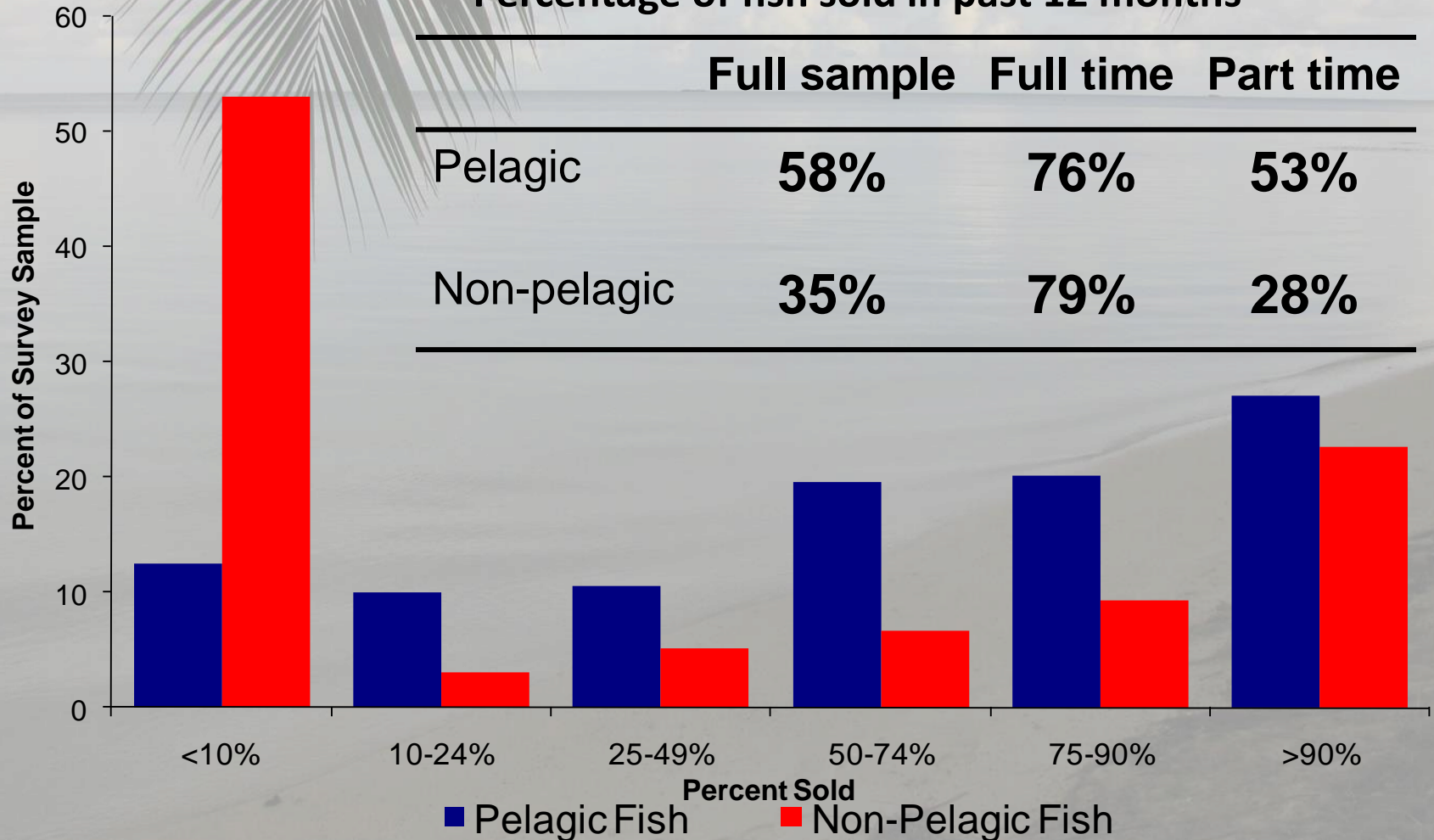
Hawaii Small Boat Pelagic Fishery

- Self classification vs. Behavior
 - **30%** self classified as recreational sold fish
 - **10%** self classified as commercial did not sell fish in the past 12 months
 - **11%** reported selling fish *without* commercial marine license (CML)
 - **16%** reported owning a CML *without* selling fish in the past 12 months

Hawaii Small Boat Pelagic Fishery

Percentage of fish sold in past 12 months

	Full sample	Full time	Part time
Pelagic	58%	76%	53%
Non-pelagic	35%	79%	28%

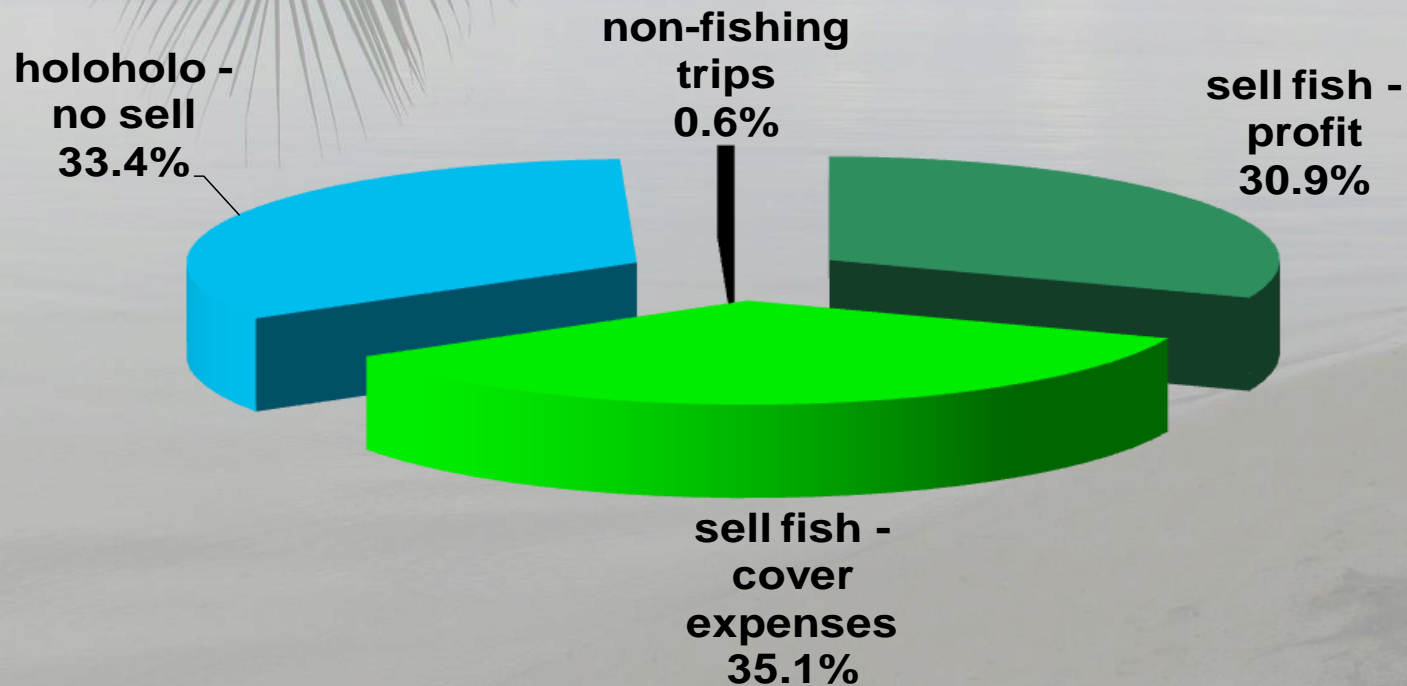


Hawaii Small Boat Pelagic Fishery

- **29%** of fish caught is consumed at home
- **32%** of fish is given away
- **62%** of fishermen consider the fish they catch to be an important source of food for their family
 - Hawaii: **74%**
 - Maui: **79%**
 - Oahu: **52%**
 - Kauai: **64%**

Hawaii Small Boat Pelagic Fishery

Trip Classification for “commercial” fishermen



Primary Motivation for selling fish?:

64% cover expenses, **22%** for commercial purposes, **14%** depends

MHI Bottomfish Fishery

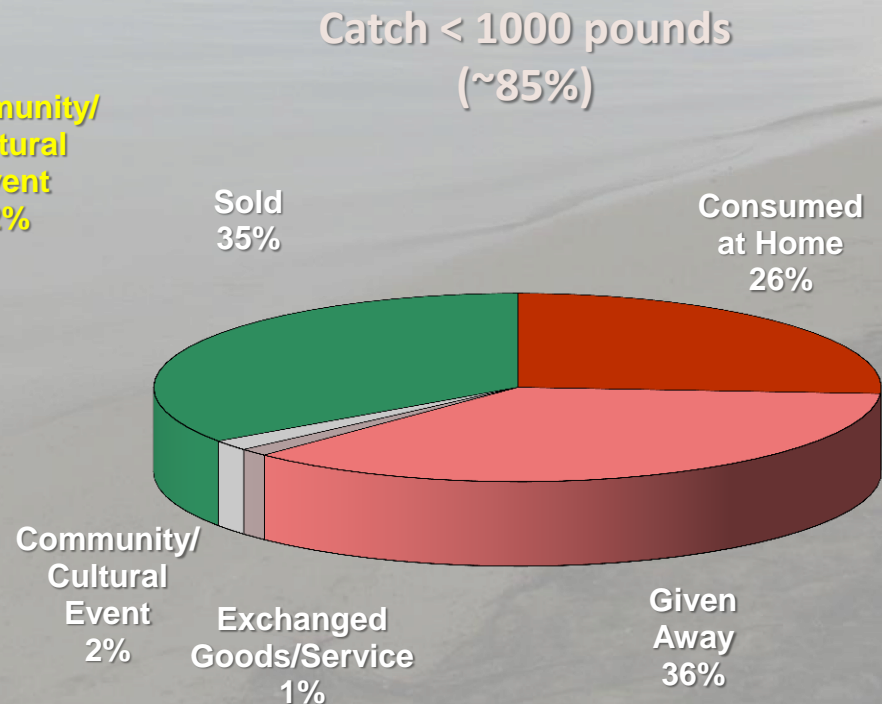
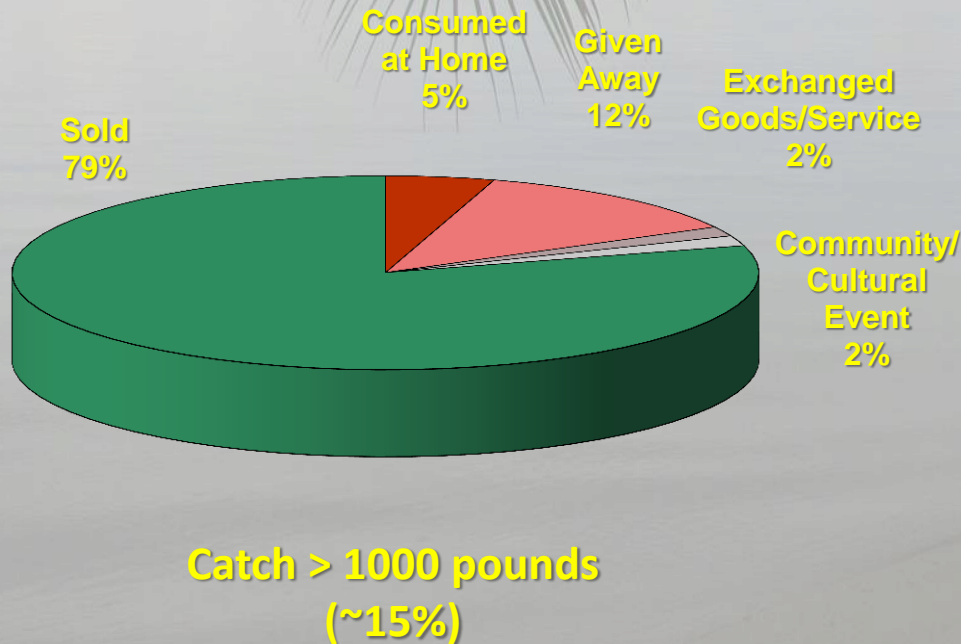
- Commercial Marine License and Noncommercial bottomfish permit frame
- **Self-Classification Results**
 - Full Time Commercial: **7%**
 - Part Time Commercial: **52%**
 - Recreational: **41%**
 - Subsistence: **14%**
 - Other: **9%**
 - Multiple Motivations: **19%**
- **69%** reported selling bottomfish in past 12 months
- **24%** commercially licensed fishermen did not sell bottomfish

MHI Bottomfish Fishery

- **40%** self-classified as exclusively recreational fishermen sold bottomfish in past 12 months
- **68%** self-classified as exclusively subsistence fishermen sold bottomfish in past 12 months
- **How define “commercial”**
 - Sell at least one fish (State definition): **22%**
 - Sell fish to cover expenses: **23%**
 - Sell enough fish to make profit: **55%**

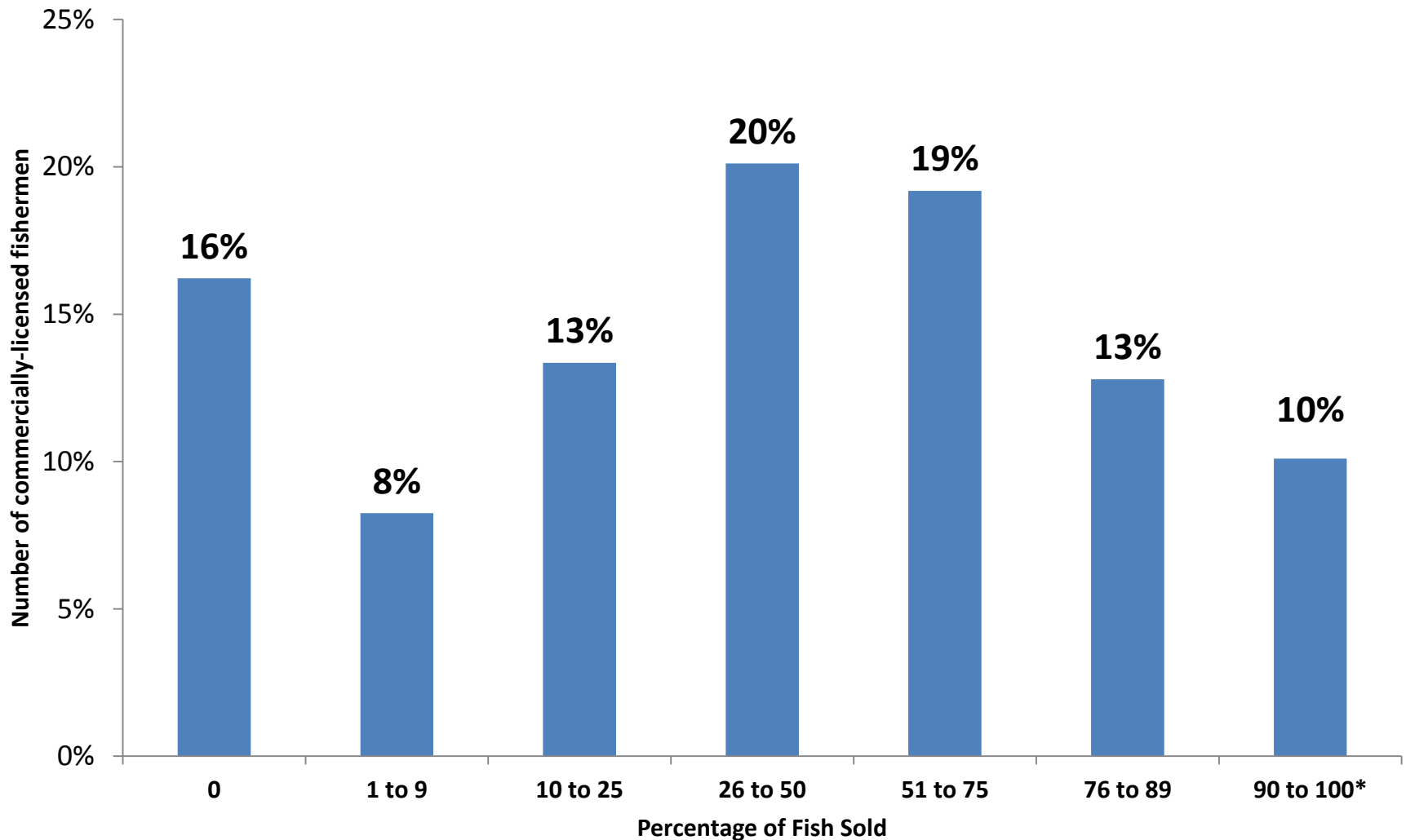
MHI Bottomfish Fishery

- Disposition of bottomfish catch



State of Hawaii CML data: 2007

"Commercial Activity" in Commercial Marine License Frame: 2007



Challenges to Noncommercial Research

- Logistics and cultural considerations
- How to define population
- **How to build a sample frame**
- Jurisdictional Issues



Building a sample frame

- **Hawaii**

- National Expenditure Survey (2006, 2011)

- Volunteer sign-up sheets

- tackle shops, tournaments, boat club meetings, fishing/tackle expos, Hawaii fishing festival

- » 2006: **525**

- » 2011: **688**

- **Guam/CNMI**

- Community Meetings

- Buy-in from key stakeholders, advertised on radio, face time

- Volunteer sign-up sheets

- Guam fishermen's festival

- Fishing Organizations

- Guam Fishermen's Coop, MUFF, GOSA

Challenges to Noncommercial Research

- Logistics
- How to define population
- How to build a sample frame
- **Jurisdictional issues**



Jurisdictional Issues

- **State of Hawaii**
 - Majority of noncommercial activity occurs in State waters (shore and boat-based)
 - Little political will for licensing program
- **CNMI submerged lands**
 - Currently no local waters in CNMI
 - H.R. 670 recently approved by House Natural Resources Committee (*June 2011*)

Noncommercial Data Needs

- A more refined “recreational” population
 - Small boat = “recreational”?
 - Longline = commercial?
- Reliable estimates for number of fishermen and effort
 - Economic impact expansions (50% decline in HI ???)
- Improved MRIP sampling and expansions
- American Samoa small boat data collection
- Hawaii, AmSamoa, Guam, CNMI shore-based
- Economic Contribution of fisheries:
Guam/CNMI/AmSam

Future Issues

- **Annual Catch Limits**
 - Allocation?
 - No noncommercial catch histories
- **Protected Species Issues**
 - Monk seal critical habitat
 - Insular false killer whales
 - Spotted dolphin anecdotes
 - Napoleon wrasse (Marianas)
 - Corals (83 petitioned)



pau

